

minimum value to a predetermined maximum value along with an increase of the second parameter quantity, and

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means for controlling of the brake system such that the brake system is actuated to accomplish the target deceleration of the vehicle when the first parameter quantity exceeds a threshold value predetermined therefor.

REMARKS

Claims 1-7 are pending. By this Amendment, claim 1 is amended. No new matter is involved.

An Appendix of marked up claim 1 is attached per 37 CFR §1.121.

Applicants acknowledge with appreciation the indication of allowable subject matter in claims 3, 5 and 6. Claims 3, 5 and 6 have not been amended, however, because Applicants believe that they are allowable in their present form based on the fact that the claims from which they depend are allowable over the applied art, for reasons discussed below:

The Office Action rejects claims 1-6 under 35 USC §112, first paragraph, because the specification allegedly fails to provide support for "the first parameter quantity exceeding a threshold value predetermined therefor 'so as to counteract a further increase of the rolling amount by the deceleration of the vehicle' as claimed in lines 9-10 of amended claim 1." This rejection is respectfully traversed.

Claim 1, as amended, does not contain this language. Accordingly, the rejection is moot and should be withdrawn.

The Office Action rejects claims 1-6 under 35 USC §112, second paragraph for failing to particularly point out and distinctly claim the invention. This rejection is respectfully traversed.

The Office Action alleges that the phrase "so as to increase from a predetermined minimum value to a predetermined maximum value" in claim 1, lines 8-9, is indefinite. The Office Action asserts that which parameter is being increased is not clear, and suggests changing the language to read -- so as to increase the X from a predetermined minimum value or a predetermined maximum value --, replacing X with the appropriate parameter. This suggestion has been adopted, so that the clause in issue now reads -- so as to increase the target deceleration from a predetermined minimum value to a predetermined maximum value --, thereby obviating the rejection. The scope of the claims has not been narrowed in any way by this Amendment.

The Office Action asserts that the phrase "a target deceleration in line 11 is indefinite because it is unclear whether the target deceleration in line 11 differs from or is the same as that claimed in line 7. Applicants have amended claim 1, line 11, to change "a target" to --the target--, thereby obviating the rejection. The scope of the claims has not been narrowed in any way regarding this Amendment.

The Office Action asserts that the terms "the deceleration" in line 3 from the bottom is indefinite. This rejection is moot in view of the cancellation of the language in issue from the claim.. The scope of the claims has not been narrowed in any way regarding this Amendment.

The Office Action rejects claims 1, 2 and 7 under 35 USC §103(a) over Halasz in view of Harada. This rejection is respectfully traversed.

Initially, Applicants note that claim 1, as amended, positively recites means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity.

Halasz fails to decelerate the vehicle or to otherwise try to prevent the overturning of the vehicle, features which are positively recited in the claims, and does not seek to "accomplish a target deceleration of the vehicle," as recited. Nor does Halasz try to counteract a further increase of the rolling amount by deceleration of the vehicle, as recited.

To remedy these clear deficiencies, the Office Action turns to Harada, which states that it "...relates to an automatic deceleration control method and apparatus for automatically decelerating a turning vehicle, thereby stabilizing the turning behavior of the vehicle" (see col. 1, lines 8-11).

The Office Action alleges that it would be obvious to have modified Halasz in view of Harada to include a prevention of over-rolling of a vehicle to provide vehicle stability. As modified, Halasz is said to teach the feature of actuating the brake system to accomplish a brake deceleration when the first parameter (alleged to be roll-angle as disclosed in col. 6, lines 12, 13, 15, 16) exceeds a threshold so as to counteract a further increase in the rolling amount by deceleration of the vehicle to the same extent as Applicants.

Harada et al. is directed to deceleration control for a large turning vehicle, such as a truck or bus, to restrain it from excessive rolling (col. 1, lines 36-51). Applicants respectfully submit that the Office Action fails to provide proper motivation to combine the teaching of these references. The first requirement of proper motivation is that a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This evidence may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. See Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). However, the suggestion more often comes from the teachings of the pertinent references. See

In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459(Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See Dembiczak, 175 F.3d at 1000, 50 USPQ2d at 1617.

Halasz is totally devoid of active control of the vehicle movement, and makes no attempt to control the vehicle running characteristics, such as roll-over. Instead, Halasz is limited to letting the vehicle roll-over and merely actuating an occupant safety device such as "a seat belt pretensioner mechanism, an air bag, an automatic roll-over bay, a door lock or a cellular phone" (see the Abstract and Background of the Invention, col. 1, lines 1-21). Moreover, Halasz is directed to a "sudden change in acceleration, pitch angle or roll angle of a vehicle" (emphasis added) (col. 1, lines 8-12), and uses filters responsive to a frequency band "...corresponding to or representing acceleration indicative of an impact due to a collision." (col. 6, lines 55-58). Vehicles in collisions are not likely candidates for the teachings of Harada, which are directed to decelerating vehicles which are not disclosed as being involved in collisions.

Moreover, Halasz is not concerned with the over rolling of the vehicle in the sense of controlling the over rolling. Halasz is interested in determining whether a vehicle is going to roll over but makes no attempt to reduce the tendency of, or prevent, the over rolling of the vehicle. Halasz is completely devoid of controlling the tendency of the vehicle to over roll. Halasz's disclosure is only directed to activating one or more safety devices to protect a passenger in the vehicle "in case of a roll-over or pitch-over movement" (col. 4, lines 56-60), and discloses a method and apparatus for predicting roll-overs and pitch-over movements in motor vehicles (col. 4, lines 61-65).

In order to modify Halasz, as suggested in the Office Action, one would have to completely redesign Halasz, which does not disclose or suggest actuating a vehicle roll-over

control. There is no suggestion in Halasz, nor is there any suggestion in Harada to do this. Moreover, there is a disincentive to combine the references, Halasz being directed roll-over and pitch-over movements generated by sudden impacts from a collision, and Harada not being directed to rolling over due to sudden impacts, e.g., collisions. The only suggestion to combine these references is hindsight reconstruction of Applicants' invention, which is improper. Halasz is not at all concerned with trying to control the vehicle to reduce its tendency to roll-over and, therefore, is not at all concerned with brake control, let alone a brake control in which a target determined by a parameter counteracts the parameter.

Moreover, even if the references were somehow combined, they would not disclose or suggest the feature of "means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity." This feature is not addressed in the rejection. Neither reference discloses this feature and the Office Action fails to explain how such a feature would result from combining both Halasz and Harada.

Applicants further point out that Halasz fails to disclose (1) deceleration or (2) a target value of deceleration, as recited in the claims. Therefore, even if Halasz were to disclose a target value of the deceleration is increased from a predetermined minimum value to a predetermined maximum value according to an increase in the second parameter quantity, Halasz would not disclose claim features (1) and (2).

Applicants respectfully contend that Halasz also does not disclose a target value of the deceleration is increased from a predetermined minimum value to a predetermined maximum value according to an increase in the second parameter quantity.

The Office Action contends that Halasz's first parameter quantity is the y-axis roll angle as disclosed in col. 6, lines 12, 13, 15 and 16 and that the second parameter quantity is

y-axis acceleration of the rolling amount of the vehicle as disclosed in col. 6, lines 39-41.

The Office Action indicates that Halasz generates a control signal (actuation of one vehicular safety device) when the first parameter quantity exceeds a threshold value as disclosed in col. 7, lines 18-19. Applicants note that the claim does not recite merely generating a control signal, but recite means for controlling of the brake system to counteract the over rolling of the vehicle. The Office Action states that the control is increased (activation of another control device) according to an increase of the second parameter quantity (y-axis acceleration) as disclosed in col. 7, lines 36-46 (which states that a second control signal generator generates a first control signal when the G force exceeds a second predetermined value such as from about 1G to 5G's and a thirds control signal when the G force sensed by the sensor means exceeds a second predetermined value greater than 5G's).

The Office Action is disregarding the explicit claim language. The claim calls for (1) means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity, and (2) means for controlling of the brake system such that the brake system is actuated to accomplish the target deceleration of the vehicle when the first parameter quantity exceeds a threshold value predetermined therefor.

Halasz only discloses different thresholds of roll-over or pitch-over values at which different safety devices are triggered. Halasz's first control signal generator 42 triggers a first safety device when either the pitch angle and pitch angle rate exceed a predetermined value indicative of a pitch over condition, or when the roll angle and roll angle rate exceed a predetermined roll-over condition. Halasz's second control generator actuates first and second signals to trigger one safety device when the G force exceeds a second predetermined value, and to trigger another safety device when the G force exceeds a third threshold value.

Additionally, the rejection improperly compares an increase in a vehicular behavior parameter, such as deceleration of a vehicle, to an increase of the variety of safety devices operated in parallel, completely disregarding the technical concept of control, and only relying on a verbal format of expression. The number of safety devices operated in parallel by Halasz is not controlled according to a change rate of the number of safety devices operated in parallel. Applicants also point out that, in Halasz, the control of changing the number of safety devices operated in parallel is not started when the number has changed from its standard or neutral state beyond a threshold value to be comparable to the features recited in claim 1 because any change in the number of safety devices operated in parallel is a result of the control itself. The control can never start as a matter of logic.

A fair, balanced appraisal of the rejection shows that the Halasz, the primary reference, is totally devoid of any disclosure or suggestion of (1) deceleration or (2) a target value of deceleration, or (3) a predetermined minimum target value of deceleration, or (4) a predetermined maximum target value of deceleration, or (5) means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity.

Nor does Harada provide these features. Nor is there any proper motivation to combine these references. The Office Action indicates that both Halasz and Harada monitor over-rolling parameters to determine the actuation of a vehicular safety device and that the combination merely included the modification of the vehicle safety device of Halasz with the vehicle safety device of Harada which is capable of achieving a target deceleration. This is the type of broad conclusionary statement that is insufficient to motivate one of ordinary skill in the art to add Harada's automatic deceleration system to Halasz - see Dembiczak, cited above.

With respect to claim 2, Halasz discloses measuring three parameters, only one of which is lateral acceleration, and lateral acceleration (around the Z-axis) is not disclosed in col. 7 as being a parameter used to generate the first control signal. There is no indication in either reference to select the first parameter as one which is proportional to lateral acceleration, as recited. Thus, claims 1, 2 and 7 patentably distinguish over Halasz and Harada, and are in condition for allowance.

Accordingly, the rejection of claims 1, 2 and 7 under 35 USC 103(a) as unpatentable over Halasz in view of Harada is improper and should be withdrawn.

The Office Action rejects claim 4 under 35 USC §103(a) as unpatentable over Halasz in view of Harada (as applied in the rejection of claim 1) and further to in view of Ikemoto et al. (U.S. 4,807,128 - hereinafter "Ikemoto"). This rejection is respectfully traversed.

Initially, it is noted that to the extent that the rejection is based on the reference combination of Halasz and Harada, it is improper for the reasons stated above regarding claim 1, from which claim 4 depends.

Ikemoto is applied to teach, in col. 3, line 28, the use of rate of change of the steering angle in the control of vehicle over-roll. The Office Action asserts that it would be obvious to modify the second parameter quantity indicative of a change rate of the variable amount of the vehicle body of Halasz to include a rate of change of the steering angle as taught by Ikemoto to provide an alternate parameter for triggering the necessary target deceleration control.

Ikemoto merely measures the rate of change of the steering angle as one of many inputs to predict the roll angle of the vehicle. Neither Halasz nor Harada include such a parameter in their devices. Halasz never mentions using a steering angle. Harada appears content to simply use the steering wheel angle and compute a steering wheel angular speed (col. 8, lines 40-64). There is no proper motivation for one of ordinary skill in the art to

modify either reference to measure the change rate of the steering angle. The assertion that one could use this parameter as an alternative is, at best, an assertion that it might be feasible, but not that it would be desirable. The only teaching of the desirability of using such a parameter is found in Applicants' disclosure. Thus, the reference combination of Halasz., Harada and Ikemoto is improper and does not render the claimed subject matter obvious for the reasons stated above.

Claim 7 is an earlier version of claim 1, without the material which the Examiner indicates has no basis in the disclosure, i.e., without the content that serves as the basis for the rejection of claim 1 under 35 USC §112, first paragraph. This claim is patentable for the same reasons that claim 1 is patentable, in general for the reasons set forth above, and for the following reasons.

The Office Action is disregarding the explicit claim language. The claim calls for increasing the target value of the deceleration from a predetermined minimum to a predetermined maximum according to an increase of the second parameter quantity. In Halasz, there is no concept of (1) deceleration or (2) a target value of deceleration, or (3) a predetermined minimum target value of deceleration, or (4) a predetermined maximum target value of deceleration. Halasz only discloses different thresholds of roll-over or pitch-over values at which different safety devices are triggered. Halasz's first control signal generator 42 triggers a first safety device when either the pitch angle and pitch angle rate exceed a predetermined value indicative of a pitch over condition, or when the roll angle and roll angle rate exceed a predetermined roll-over condition. Halasz's second control generator actuates first and second signals to trigger one safety device when the G force exceeds a second predetermined value, and to trigger another safety device when the G force exceeds a third threshold value.

The rejection improperly compares an increase in vehicular behavior parameter, such as deceleration of a vehicle, to an increase of the variety of safety devices operated in parallel, completely disregarding the technical concept of control, and only relying on a verbal format of expression. The number of safety devices operated in parallel by Halasz is not controlled according to a change rate of the number of safety devices operated in parallel. Applicants also point out that, in Halasz, the control of changing the number of safety devices operated in parallel is not started when the number has changed from its standard or neutral state beyond a threshold value to be comparable to the features recited in claim 1 because, since any change in the number of safety devices operated in parallel is a result of the control itself, the control can never start as a matter of logic.

A fair, balanced appraisal of the rejection shows that the Halasz, the primary reference, is totally devoid of any disclosure or suggestion of (1) deceleration or (2) a target value of deceleration, or (3) a predetermined minimum target value of deceleration, or (4) a predetermined maximum target value of deceleration, or (5) increasing the target value of deceleration from a predetermined minimum to a predetermined maximum according to an increase of the second parameter quantity.

Nor does Harada provide these features. Nor is there any proper motivation to combine these references. The Advisory Action indicates that both Halasz and Harada monitor over-rolling parameters to determine the actuation of a vehicular safety device and that the combination merely included the modification of the vehicle safety device of Halasz with the vehicle safety device of Harada which is capable of achieving a target deceleration. This is the type of broad conclusionary statement that is insufficient to motivate one of ordinary skill in the art to add Harada's automatic deceleration system to Halasz - see Dembiczak, cited above. Thus, claim 7 patentably distinguishes over Halasz and Harada, and is allowable.

The Office Action also rejects claims 1, 2 and 7 under 35 USC §103(a) as unpatentable over Harada in view of Halasz. This rejection is respectfully traversed.

Initially, Applicants strenuously object to the inclusion of this new rejection in the Office Action along with the rejection of these very claims over Halasz in view of Harada, as set forth above where, as here, the claim language interpretation is the same for both rejections. Compare MPEP §702.02. The Office should select the best rejection and stick with that rejection. Assertion of two different rejections casts doubt on the confidence of the Office in either one of the rejections, and doubtful rejections should not be made.

Nevertheless, in order to be fully responsive to this rejection, Applicants present the following traversal of this rejection. Applicants view this presentation of two vastly different rejections as a tacit admission that neither one is valid.

In order to modify Harada, as suggested in the Office Action, one would have to completely redesign Harada who determines allowable lateral acceleration for a measured road coefficient of friction and for which a turning vehicle cannot reach its rollover limit, and automatically decelerates the vehicle to avoid exceeding the rollover limit. Halasz is not concerned with vehicle deceleration control and determines rate of change of vehicle pitch angle, rate of change of vehicle roll angle, and G forces sensed by sensor 20, generating a first control signal; when either the pitch angle and pitch angle rate exceed a predetermined value indicative of a pitch-over condition or when the roll angle and roll angle rate each exceeds a predetermined value of a roll-over condition, and generates second a third control signals depending on sensed G force values. There is no correlation in the Office Action of the different sensed values and different control signals and different thresholds used for generating control signals, and no indication of what portions of Harada would be modified by what portions of Halasz to arrive at the claimed invention.

In this regard, the Office Action is effectively stating to throw the references into a bag, shake them up in a random manner, and out will pop the claimed invention. Neither reference provides any motivation to one of ordinary skill in the art of how to combine them to achieve the claimed invention. The Office Action provides no direction to one of ordinary skill in the art in this regard, either.

Moreover, there is another disincentive to combine the references, i.e., Halasz being directed roll-over and pitch-over movements generated by sudden impacts from a collision, and Harada not being directed to rolling over due to sudden impacts, e.g., collisions. The only suggestion to combine these references is hindsight reconstruction of Applicants' invention, which is improper. Halasz is not at all concerned with trying to control the vehicle to reduce its tendency to roll-over and, therefore, is not at all concerned with brake control, let alone a brake control in which a target determined by a parameter counteracts the parameter.

Moreover, even if the references were somehow combined, they would not disclose or suggest the feature of "means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity." This feature is not addressed in the rejection, or in the Advisory Action. Neither reference discloses this feature and the Office Action fails to explain how such a feature would result from combining both Halasz and Harada.

The Office Action cites Harada's steering wheel angle sensor 42 for providing a second parameter quantity of a change rate of the rolling amount of the vehicle body. However, Harada only detects the rotational angle of the steering wheel - see col. 8, lines 22 and 23, and just uses that to determine a steering wheel angular speed V_{Th} - see col. 8, lines

40-53. There is no indication in Harada that steering wheel angle sensor is a parameter indicative of a change rate of the rolling amount of the vehicle body.

The Office Action never asserts that Harada discloses or suggests "means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase the target deceleration from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity," as recited in claim 1.

Nor does the Office Assert that Halasz discloses or suggests "means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase the target deceleration from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity," as recited in claim 1.

Yet, the Office Action concludes that it would be obvious to modify Harada in view of Halasz (where neither reference discloses the quoted claimed feature) "to provide a means of ensuring the activation of sufficient vehicular safety device control, or a target deceleration in the case of Harada, to protect passengers and vehicle against over-rolling under changing or more demanding vehicle conditions."

This conclusion is completely without merit because neither reference discloses or suggests "means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase the target deceleration from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity," as recited in claim 1, and the Office Action never asserts that either reference discloses or suggests this claimed feature.

The only basis for this rejection is Applicants' disclosure and basing a rejection on Applicants' disclosure is clearly improper.

With respect to claim 2, Harada discloses measuring many different parameters, including lateral acceleration, yaw rate, longitudinal acceleration, coefficient of friction of road surfaces, etc., and Halasz discloses measuring three parameters, only one of which is lateral acceleration, and lateral acceleration (around the Z-axis) is not disclosed in col. 7 as being a parameter used to generate the first control signal. There is no indication in either reference to select the first parameter as one which is proportional to lateral acceleration, as recited.

The Office Action rejects claim 4 under 35 USC §103(a) as unpatentable over Harada in view of Halasz (as applied in the rejection of claim 1) and further to in view of Ikemoto et al. (U.S. 4,807,128 - hereinafter "Ikemoto"). This rejection is respectfully traversed.

Initially, it is noted that to the extent that the rejection is based on the reference combination of Harada and Halasz, it is improper for the reasons stated above regarding claim 1, from which claim 4 depends.

Ikemoto is applied to teach, in col. 3, line 28, the use of rate of change of the steering angle in the control of vehicle over-roll. The Office Action asserts that it would be obvious to modify the second parameter quantity indicative of a change rate of the variable amount of the vehicle body of Harada to include a rate of change of the steering angle as taught by Ikemoto to provide an alternate parameter for triggering the necessary target deceleration control.

Ikemoto merely measures the rate of change of the steering angle as one of any inputs to predict the roll angle of the vehicle. Neither Halasz nor Harada include such a parameter in their devices. Halasz never mentions using a steering angle. Harada appears content to simply use the steering wheel angle and compute a steering wheel angular speed (col. 8, lines 40-64). There is no proper motivation for one of ordinary skill in the art to modify either reference to measure the change rate of the steering angle. The assertion that one could

use this parameter as an alternative is, at best, an assertion that it might be feasible, but not that it would be desirable. The only teaching of the desirability of using such a parameter is found in Applicants' disclosure. Thus, the reference combination of Halasz., Harada and Ikemoto is improper and does not render the claimed subject matter obvious for the reasons stated above.

Claim 7 is an earlier version of claim 1, without the material which the Examiner indicates has no basis in the disclosure, i.e., without the content that serves as the basis for the rejection of claim 1 under 35 USC §112, first paragraph. This claim is patentable for the same reasons that claim 1 is patentable, in general for the reasons set forth above, and for the following reasons.

The Office Action is disregarding the explicit claim language. The claim calls for increasing the target value of the deceleration from a predetermined minimum to a predetermined maximum according to an increase of the second parameter quantity. In Halasz and in Harada, there is no concept of (1) deceleration or (2) a target value of deceleration, or (3) a predetermined minimum target value of deceleration, or (4) a predetermined maximum target value of deceleration.

A fair, balanced appraisal of the rejection shows that Harada, the primary reference, is totally devoid of any disclosure or suggestion of (1) deceleration or (2) a target value of deceleration, or (3) a predetermined minimum target value of deceleration, or (4) a predetermined maximum target value of deceleration, or (5) increasing the target value of deceleration from a predetermined minimum to a predetermined maximum according to an increase of the second parameter quantity.

Nor does Halasz provide these features. Nor is there any proper motivation to combine these references. Thus, claim 7 patentably distinguishes over Halasz and Harada, and is allowable.

Turning to page 8 of the Office Action, the Office Action states that "the motivation to combine the references was based on the fact that both references monitor over-rolling parameters to determine the activation of a vehicular safety device and that the combination merely included the modification of the vehicular safety device of Halasz with the vehicular safety device of Harada which is a vehicle braking system achieving a target deceleration.

Applicants have previously stated why there is no proper motivation to combine these two references. Additionally, Applicants respectfully point out that this rationale for combining Harada and Halasz is nothing more than what the Federal Circuit has characterized as "broad conclusory statements about the teaching of multiple references" which, standing alone, are not evidence of proper motivation to combine the Harada and Halasz references. The Office Action fails to present clear and specific motivation which teaches the desirability of combining these references to achieve the claimed invention.

Accordingly, Applicants respectfully request that the rejections of claims 1, 2 and 7 under 35 USC §103(a) be withdrawn, and claims 1-7 allowed.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Attachment:
Appendix

Date: December 27, 2002

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DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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APPENDIX

1. (Five Times Amended) A device for controlling an over-rolling of a vehicle having a vehicle body, wheels, a steering system, and a brake system, the device comprising:
 - means for providing a first parameter quantity indicative of a rolling amount of the vehicle body,
 - means for providing a second parameter quantity indicative of a change rate of the rolling amount of the vehicle body,
 - means for calculating a target deceleration of the vehicle based upon the second parameter quantity so as to increase from a predetermined minimum value to a predetermined maximum value along with an increase of the second parameter quantity, and
 - means for controlling of the brake system such that the brake system is actuated to accomplish a target deceleration of the vehicle when the first parameter quantity exceeds a threshold value predetermined therefor so as to counteract a further increase of the rolling amount by the deceleration of the vehicle, wherein a value of the target deceleration is increased from a predetermined minimum value to a predetermined maximum value according to an increase of the second parameter quantity.